

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

No claims are currently being cancelled.

Claims 1, 4 and 12 are currently being amended.

Claims 18-20 are currently being added.

This amendment and reply adds and amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-12 and 18-20 are now pending in this application for examination on the merits, whereby claims 13-17 are withdrawn from consideration as being directed to a non-elected species.

Specification Objections:

In the Office Action, the specification was objected to, because of informalities noted on page 2 of the Office Action. By way of this amendment and reply, the specification has been amended to correct those informalities.

Claim Rejections – Indefiniteness:

In the Office Action, claim 1 was rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite, for the reasons set forth on pages 2 and 3 of the Office Action. By way of this amendment and reply, claim 1 has been amended to provide additional details in the ‘wherein’ clauses at the end of that claim. Accordingly, presently pending claim 1 is believed to fully comply with 35 U.S.C. § 112, 2nd paragraph.

Claim Rejections – Prior Art:

In the Office Action, claims 1-3 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/01284552 to Chadha; and claims 4-12 were

rejected under 35 U.S.C. § 103(a) as being unpatentable over Chadha in view of U.S. Patent No. 5,726,947 to Yamazaki. These rejections are traversed with respect to the presently pending claims under rejection, for at least the reasons given below.

Presently pending independent claim 1 now recites, among other things:

wherein said work memory has first and second separate ports, said first port being connected to said graphic engine,

wherein said display memory has third and fourth separate ports, said third port being connected to said second port, and said fourth port being connected to said driver circuit, and

wherein said transfer of said first bitmap data from said graphic engine to said work memory, transfer of said second bitmap data from said work memory to display memory, and transfer of said second bitmap data from said display memory to said driver circuit are allowed to be performed at the same time.

Based on the above features now explicitly recited in claim 1, a work memory and a display memory can be operated asynchronously. For example, by way of the above features, images can be continuously displayed by using a display memory, while at the same time generating a bitmap image on a work memory by using a graphic engine.

Such features as now recited in claim 1 are not taught or suggested by Chadha.

Still further, with respect to dependent claim 4, that claim now recites that the second bitmap data is developed on the display memory through data transfer of the first bitmap data directly from the work memory. Clearly, such a direct path from a work memory to a display memory does not exist in the system of Chadha, as shown in Figure 6 of that reference.

Since Yamazaki was relied on in the rejection of claim 4 for a different feature (“transferred at the same time”) not directed to the one discussed above, presently pending dependent claim 4 patentably distinguishes over the combined teachings of Chadha and Yamazaki for these additional reasons, beyond the reasons given above for its base claim.

With respect to dependent claim 12, that claim now recites:

a timing controller controlling said work memory, and said display memory, and said

driver circuit,

wherein said driver circuit is connected to said second bit lines, and

wherein said timing controller is adapted to deactivate said display memory to allow said first bitmap data to be transmitted from said work memory to said driver circuit through said second bit lines.

In its rejection of claim 12, the Office Action asserts that column 3, lines 39-44 and Figure 26 of Yamazaki teaches that a controller is adapted to deactivate a display memory to allow first bitmap data to be transmitted from a work memory to a driver circuit through second bit lines. Applicants respectfully disagree with this assertion, since column 3, lines 39-44 of Yamazaki merely describes that a selector selects data, which is then transmitted to a main amplifier. No deactivation of a display memory or any other device is described in this portion of Yamazaki, whereby Figure 26 of Yamazaki also does not show any deactivation of a display memory.

Accordingly, presently pending dependent claim 12 is patentable over the cited art of record for these additional reasons, beyond the reasons given above for its base claim.

New Claims:

New claims 18-20 have been added to recite additional features related to Species I, whereby such features are believed to provide an additional basis of patentability for those claims, beyond the reasons given above for their base claim. For example, with respect to new dependent claim 18, Figure 6 of Chadha shows that the Raw Data Memory 600, the Processed Image Memory 602, and the Frame Buffer Memory 604 are not directly connected to each other. Furthermore, new dependent claim 18 recites that first bitmap data corresponds only to a portion of an image and that cannot be directly used to display the image on the display panel is stored in a work memory, and that second bit data corresponding to an entirety of the image and that can be directly used to display the image on the display panel is stored in a display memory. The Raw Data Memory (RDM) 600 of Chadha does not appear to meet the specific features set forth with respect to the claimed work memory and what is stored in the work memory. Also, the frame buffer memory (FBM) 604 of Chadha does not appear to meet the specific features set forth with respect to the claimed display memory and what is stored in the display memory.

Accordingly, new dependent claim 18 is not anticipated by Chadha.

New dependent claim 19 recites a latch and a timing controller, whereby these features are not believed to be taught or suggested by the cited art of record, when taken as a whole. New dependent claim 20 recites a transferring means and a displaying means, and it also recites that a first rate at which the first bitmap data is transferred from the work memory to the display memory is faster than a second rate at which the second bitmap data is output from the display memory for display on the display panel. Such features as recited in new dependent claim 20 are also not believed to be taught or suggested by the cited art of record, when taken as a whole.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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